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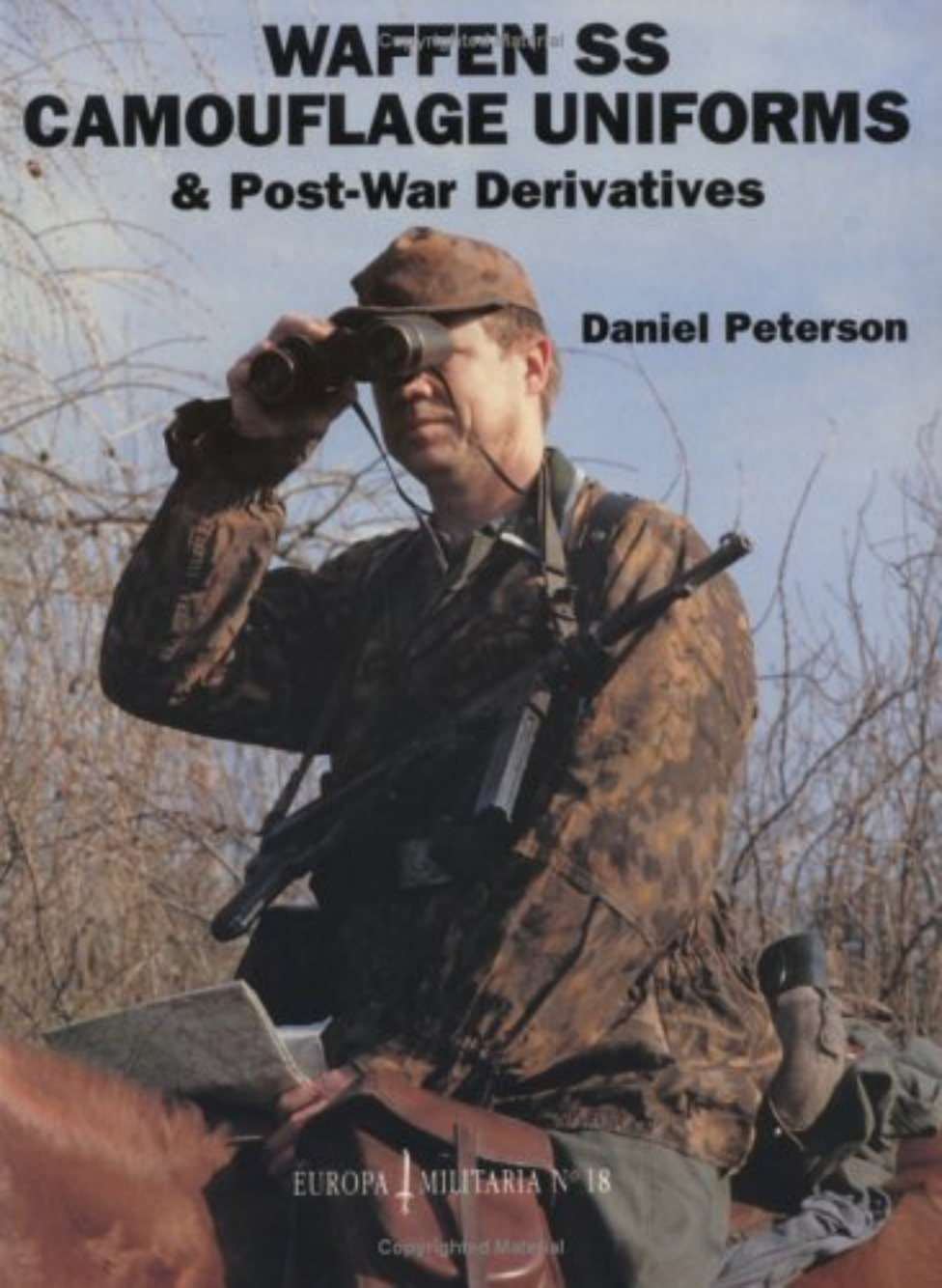
# WAFFEN SS CAMOUFLAGE UNIFORMS

## & Post-War Derivatives

Daniel Peterson



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The commonest *Waffen-SS* camouflage garments are the reversible smock (*Tarnjacke* or *Tarnhemd*) and the helmet cover (*Tarnhelmüberzug*). This reconstruction of a late 1944 Ardennes campaign scenario shows second model smocks in three camouflage patterns, all "autumn" side out: *(left) Eich-Platanen-muster* smock and helmet cover; (centre) *Rauchtarn-muster* first model cover and second model smock; (right) *Beringt-Eichenlaubmuster* cover, regular *Eichenlaub-muster* smock, both of second model.

# INTRODUCTION

This is the second of two books in this series which together attempt - for the first time - to illustrate and categorize all the various types and patterns of camouflage pattern printed uniforms used by the German armed forces from before the Second World War until the present day. For readers unfamiliar with the first volume (EM 17, *Wehrmacht Camouflage Uniforms & Post-War Derivatives)* the format should be explained here, as the reference to "*Waffen-SS*" in the title does not completely explain the contents.

Although the primary focus of both volumes is German camouflage clothing issued in the Second World War, post-war patterns are also included so that the whole evolution of German camouflage clothing can be traced. For the collector, the study of postwar patterns will be useful in avoiding such items when they are unscrupulously offered for sale as wartime originals of similar appearance; and it should also be added that post-war German militaria has become a collecting field in its own right.

The layout of these books may seem somewhat illogical in that various post-war East and West German patterns appear in both volumes. This is because the camouflage patterns in this study are categorized, primarily, **by their design characteristics rather than by their origin.** All German patterns can be divided into two broad, though well-defined categories which had their origins even before the Second World War. In the simplest terms, *Wehrmacht* developed patterns are characterized by the inclusion of a "raindrop" ("*Strich*") effect of parallel lines, whereas those developed by the *Waffen-SS* lack this element. Thus, the companion volume (EM 17) covers all German patterns in which the "raindrop" effect is present, while this book focuses on those patterns from which it is absent. Both books include post-war patterns of both East and West German manufacture; both, foreign post-war patterns whose inspiration may be traced to, or which superficially resemble, wartime German patterns; and this book, some examples of foreign patterns used by wartime German troops.

## Nomenclature

Throughout both texts the various camouflage patterns have been assigned German names - the terms by which they are commonly known in Germany. Generally these names are based on the patterns' resemblance to vegetation, e.g. *Erbsen* ("peas"), *Eichenlaub* ("oak leaves"), *Platanen* ("plane tree bark"), and so forth. Most, if not all of these names seem to have been of wartime origin; and it is to be

Buttonhole variations in two original examples of the *Zeltbahn*: (left) hand stitching, perhaps by forced labour, is often found in W-SS garments; (right) finely machined "keyhole" stitching.

hoped that in time the many confusing and contradictory English language terms for German camouflage may be generally replaced by this original German nomenclature.

## History and development

There is a popular misconception that the *Waffen-SS* was the first military force to issue camouflage-printed materials. This is only true if we exclude the camouflage tent/ poncho, an example of which was issued in 1929 by the Italian Army. The familiar *Wehrmacht* "splinter" pattern tent/poncho *(Zeltbahn)*, introduced in 1931, also pre-dates the *Waffen SS* as an organization.

Camouflage clothing was first tested by the *Waffen-SS* at the end of 1937; and in June 1938 a patent was awarded by the Reich Patent Office for the reversible camouflage helmet cover *(Tarnhelmüberzug)*, pullover smock *(Tarnjacke* or *Tarnhemd)*, and a face mask. Initial manufacture was slow as they were screen-printed by hand. By 1940 introduction of the roller printing press had greatly speeded manufacture, which was nevertheless limited by the availability of high quality waterproof cotton duck.

The idea of equipping the *Waffen-SS* with camouflage clothing is credited to *SS-Sturmbannführer* (Major) Wim Brandt, commander of the reconnaissance section of the *SS-Verfügungstruppe,* the forerunner of the *Waffen-SS*. The earliest camouflage patterns were designed by Professor Otto Schick, and were based on his studies of the effect of sunlight through trees. It is possible that Professor Schick developed most, if not all of the SS patterns, as he is also credited in a 1945 report by US Army Quartermaster Francis S.Richardson with the design of the very last pattern - the *Leibermuster* - of which production began in early 1945.

For the first three years of the war camouflage clothing was limited to those garments first introduced in 1937, and unofficial garments field-made from *Zeltbahn* material. 1942 saw the introduction of a visored (peaked) field cap, and the improvement of the helmet cover and smock: both had foliage loops added, and the latter, integral skirt pockets to replace the original breast access vents. In 1943 various new items were introduced, including a one-piece reversible coverall for armoured vehicle crews; and a complete winter uniform of trousers, parka, mittens and hood, reversible from various camouflage patterns to white.

The pullover smock was discontinued in 1944 in favour of a two-piece suit (the *getarnter Drillichanzug*) cut like the current field grey wool uniform. The one-piece *Panzerkombination* was also superseded by a two-piece suit *(getarnter Panzer Drillichanzug)* of identical cut to the black woollen *Panzer* uniform. Both of these uniforms were initially printed in the earlier *Eichenlaubmuster*, but are better known in a new "all seasons" pattern - the first major departure from the contrasting "spring/autumn" coloration of the earlier uniforms. A paratrooper's jump-smock (and possibly matching trousers) in this same pattern were apparently also introduced in 1944, to replace those borrowed from the *Luftwaffe*. A wide variety of garments were also being made during 1944 from Italian camouflage material. The beginning of 1945 saw the introduction of a new type of combat suit, inspired by the British battledress, in an entirely new camouflage pattern known as *Leibermuster.*

This pattern was revived briefly with the creation of the West German *Bundeswehr*, but was shortlived, being replaced in 1956 by a *Wehrmacht*-inspired splinter-pattern suit. The same year saw the creation of East Germany's *Nationale Volksarmee*, whose first camouflage was closely based on the wartime Russian pattern, followed by a blotched combat suit of their own design. This was in turn superseded by the "raindrop" *(Strichmuster)* uniform in 1965.

Back in the West, by the 1960s camouflage uniforms had been discontinued; but reappeared in trials held in 1976, and the *Flecktarnmuster* selected in these trials was finally adopted for the army of today's united Germany.

## Collecting and identification

Just as the actual physical fabric of an Old Master painting bears no relationship to its value to the connoisseur, so with the *Waffen-SS* camouflage uniform among militaria collectors. Produced only 50 years ago, in their hundreds of thousands, these most simply-made of garments have become almost incredibly sought-after, and thus expensive; and, like Old Masters, their high market value invites forgery. While some are genuinely rare (some in this collection may even

**(Left)** Three camouflaged winter garments: (left) the padded *Wintertarnanzug* in "spring green" *Eichenlaub-muster*; (centre) fur-lined Italian camouflage cloth parka; (right) *Beringt-Eichen-laub* parka in "autumn brown".

**(Below)** From 1 December 1942 insignia were produced in both green (as here) and brown artificial silk thread on black backing, for use on the camouflage field cap.

be unique today), their high value is generally based more on voracious demand than on any true rarity. The deliberate faking of SS camouflage garments for profit, epidemic in recent years, has coincided with the increased popularity of Second World War re-enactment groups. Most manufacturers of replica uniforms for this latter market are honest, striving only to perfect their products for a discriminating clientele. Inevitably, however, dishonest individuals have artificially aged and modified these pieces in order to sell them at high prices as originals.

The appearance of every book on this subject is always greeted by speculation among enthusiasts that some of the items illustrated may be forgeries; and indeed, this is usually true, though the honest intentions of the authors are not in question. What may perhaps make this book especially useful is that the great majority of illustrated examples have been personally collected by the author, predominantly at "flea markets" or directly from Eastern European emigrés, over nearly twenty years' residence in Germany. Most were obtained for nominal prices. The point is that fakers are motivated by the desire for high profits: when these garments are sold in "flea markets" by non-specialist used clothing dealers at prices far below their value to collectors, it is a fair assumption that they are originals.

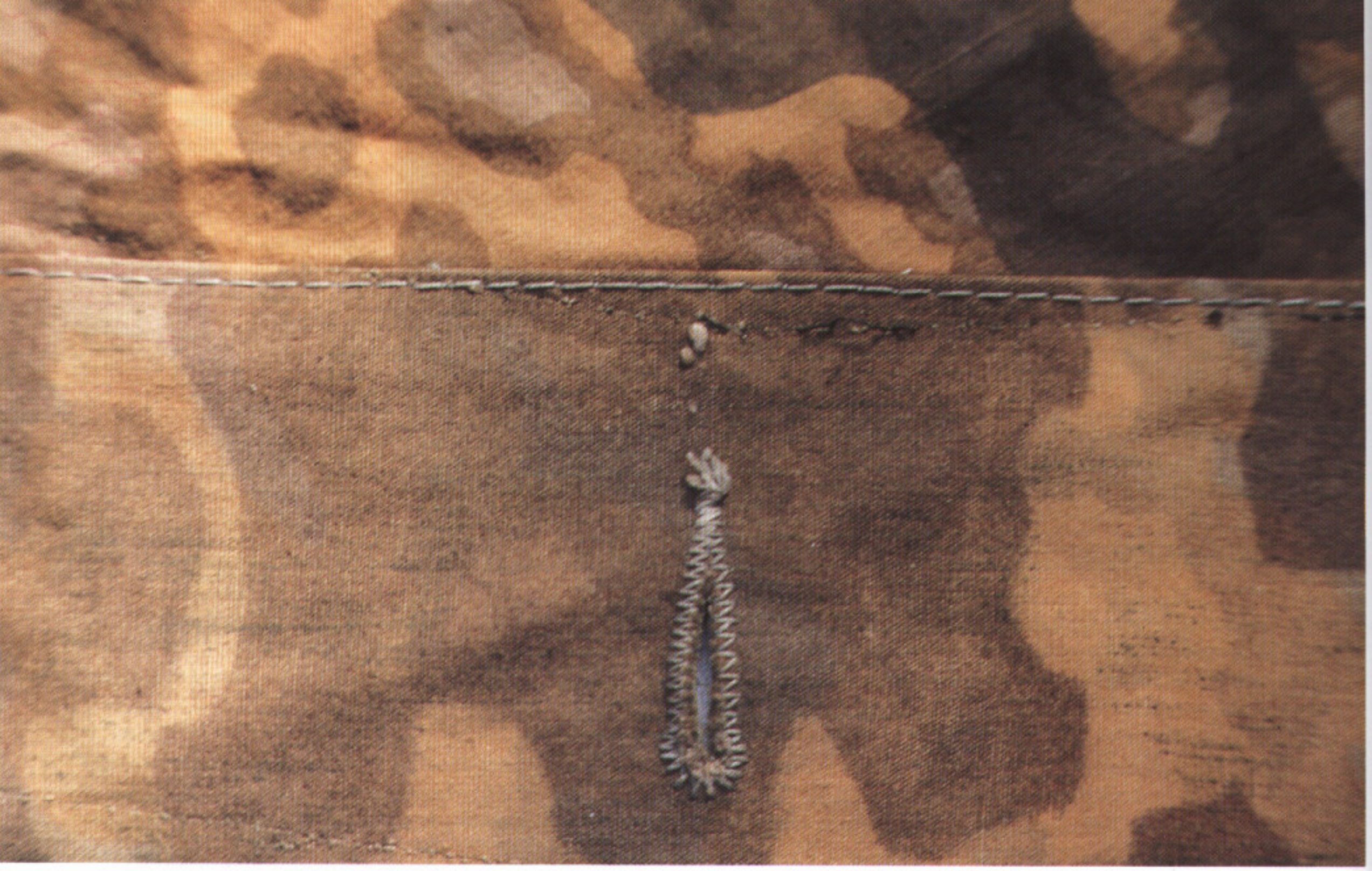
Long experience has given the author some insight into the ways of forgers in this field, and within the limitations of space some tips for fake-detection are given in the various chapters which follow. Some general advice may be useful:

(1) Try to become familiar with all of the currently available "honest" replica uniforms. Details to study include techniques in sewing, buttonholes, etc. Some dealers offer free samples of their camouflage cloth, which collectors could carry with them for comparison.

(2) Although some fakers use original thread, because of its deterioration over 50 years many use polyester or nylon thread. These usually "glow" under black lights; and melt into tiny globules when burned - cotton thread, or wartime cellulose synthetics, turn completely to ash when burned.

(3) With experience, nearly all fake *Zeltbahn* / smock cloth can be distinguished from the original by weight, colour, weave and "feel". However, good fakes made entirely out of original materials can be nearly impossible to detect. Fortunately, apart from the *Zeltbahn* it seems that large pieces of unused SS camouflage cloth did not survive into the 1960s when fakes first began to appear. It is therefore important to note that SS smocks were universally made of one folded-over piece of cloth with attached sleeves; it is impossible to make a smock from one or more original *Zeltbahnen* without tell-tale shoulder seams. Similarly, the front panels of the SS tank crew coverall are made from one piece of cloth extending from shoulder to ankle, and thus cannot be made convincingly from a *Zeltbahn*.

(4) Well worn and washed-out herringbone twill cam-



The neck gusset and edging reinforcement strips on the *SS Zeltbahn* often show different camouflage patterns from the main body, being made of factory scraps left over from earlier batches. They are therefore a clue to the chronological relationship of the patterns. Here a strip of *Rauchtarnmuster* (bottom) edges a poncho in *Eich-Platanenmuster.*

ouflage uniforms should be approached with extreme caution: interestingly, before being "aged" such fakes are very obvious - it is wiser to invest (after careful examination) in those which have not been extensively washed out.

(5) Well marked uniforms are not necessarily original - rubber stamps are cheap. On many originals markings are often illegible, washed out completely, or may never even have been applied.

Some collectors may object that the detail shots of original garments in these two books will assist the fakers to improve their products. This is a fair point; however, the author believes that the good of the many, interested in how these garments were actually constructed, must outweigh that of the very few who own these objects and believe that better copies will devalue their originals.

## Field-made and non-regulation uniforms

Many *Wehrmacht* and *Waffen-SS* uniforms actually worn in combat were not factory-made regulation pieces, but were made by individuals in the field, or privately tailored to order, usually from *Zeltbahn* material. Interestingly, while original factory-made camouflage uniforms have been priced beyond the means of many collectors, these field-made items - which may be individually unique - remain relatively plentiful and inexpensive. Given the relative availability of the *Wehrmacht* splinter *Zeltbahn*, uniforms apparently field-made from that material may well be of dubious origin. But given the high price of the SS *Zeltbahn*, it would be extremely foolish for a faker to cut one up to make a jacket worth considerably less - several helmet covers would be a much more profitable cause in which to sacrifice it. For this reason it is generally safe to assume that non-regulation garments made from original SS camouflage cloth are probably genuine.

Another note of caution must be sounded here, however: even if a non-regulation garment was not recently faked for the collector's market, it may not necessarily have been made during the war.

In immediate post-war Europe acute shortages of every kind of civilian goods meant that military equipment was often "recycled". For example, a crude rucksack made out of SS *Zeltbahn* material could easily have been made for personal use by a post-war refugee. In the case of clothing, it is generally easier to identify immediate post-war produced items: they are more likely to have been made with a distinctly non-military cut, for obvious reasons. ("Flea markets" have even yielded several examples of women's dresses and blouses made from SS camouflage material - and the latter have not always been recognised by collectors for what they are!) Obviously, post-war items of strictly utilitarian design - e.g. mechanics' overalls - have proved much harder to identify with confidence.

**(Above)** Gusset in *Beringt-Eichenlaubmuster* (below) on an *Eichenlaub* pattern *Zeltbahn*, suggesting that the former was the earlier.

**(Below)** *Beringt-Eichenlaubmuster* gusset (above) on a poncho in *Eich-Platanenmuster*; the two patterns were probably contemporary.

# SS-PLATANENMUSTER

The *Platanenmuster* ("plane tree" or "sycamore") pattern is probably the earliest used by the *Waffen-SS*, and can be seen in pre-war photographs. This, and its derivative *Eich-Platanenmuster*, are the patterns which incorporate in their dark overprint the mysterious numerals from "1" to "6", which have been the subject of much debate.

One theory suggests that the numbers assisted soldiers in buttoning together correspondingly-numbered *Zeltbahnen* to achieve a good camouflage effect; this seems to be supported by the usually matching, parallel numbers found on early, better-made examples of *Platanen* and *Eich-Platanen Zeltbahnen*. However, it seems unlikely that under field conditions men of an SS infantry company would run around trying to match up *Zeltbahn* numbers before erecting their bivouacs; and in fact, on many *Zeltbahnen* the left and right side numbers do not match, or are simply absent.

In the author's opinion the numerals denote specific camouflage printing screens to be applied to a given roll of cloth in a controlled sequence. Examination of many specimens has revealed the lavender-grey, "spring" green and "autumn" brown base colours uniformly printed by means of rollers, but imperfections in the dark ink overprints indicating hand-application by a silkscreen process. Further, the finished pattern is never exactly repeated, as it should be if the entire pattern were roller-printed.

Production of the original *Platanen* pattern seems to have ended by 1942, and the *Eich-Platanen* by 1943, perhaps because the screen printing was uneconomically time-consuming. Thrifty manufacturers continued using up surplus cloth in this pattern, however, probably until 1944. Late, RB-numbered *Eichenlaub*-pattern *Zeltbahnen* exist with "autumn" reverse side edging made of *Platanen* pattern cloth printed (for economy?) on one side only - the hidden interior was left in natural white, detectable today in damaged examples. There are also plausible reports of autumn-pattern *Platanenmuster* smocks and helmet covers left in natural white on the other side.

Two first model *Tarnjacke* smocks, the *Platanenmuster* type on the right certainly pre-war and probably introduced in 1937. The first model smock has vertical vents in the upper torso giving access to the field equipment and pouches, over which it was originally intended to be worn.

**(Right and below)** The *Platanenmuster* first model smock reversed to the "autumn" brown side; all SS camouflage garments from their inception until the beginning of 1944 were made to be reversed between predominantly green "spring" and predominantly brown "autumn" sides according to season and terrain.

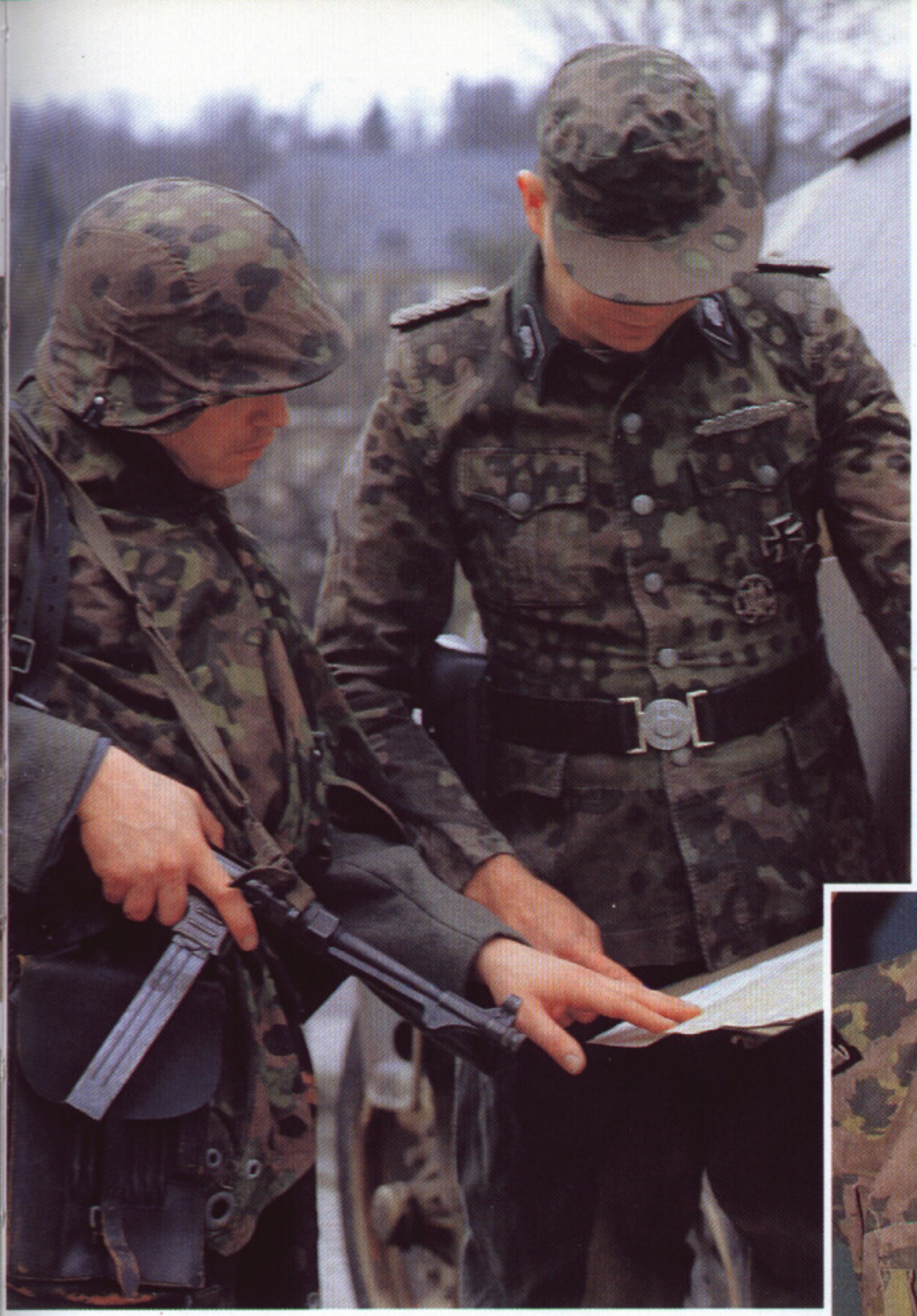
**(Below)** Interior of the face mask showing construction and blanket lining material, which suggests that it was intended as much for winter protection as for camouflage.

**(Above)** A camouflage face mask worn with a first model helmet cover, both in *Platanenmuster*. Covers made from about 1942 onwards with added foliage loops are generally termed the second model. To be pedantic, three models exist. The earliest had four attachment rocker clips; an intermediate model (illustrated) also lacked foliage loops but had three rocker clips; and the last, "second model", had foliage loops and three clips.

Note on the forearm one of the printed numerals, discussed in the text.

There is some confusion as to whether this is the original face mask patented with the helmet cover and smock in 1938, or if the patent refers to the "string" type mask - of which, unfortunately, no authenticated example has been located for this book. (Mask courtesy Patrick Ott.)

**(Right)** Another view of the face mask. This smock is readily identified as the "second model" by the loops on the shoulders; it is printed in the hybrid *Eich-Platanenmuster* which is discussed in the text. Like the helmet cover, technically there are three distinct models of smock. The earliest model had no foliage loops or skirt pockets; had vertical access vents; and had elastic in the neck opening, and an additional flap behind the front lacing. An intermediate model was distinguished from the first by the absence of the neck elastic and lacing flap. For brevity both these types are termed "first model" in this book, and the later type with foliage loops and skirt pockets, "second model".



**(Left)** Soldier wearing a *Platanenmuster Zeltbahn* as camouflage, with a *Sturmbannführer* of a *Totenkopf* unit in a non-regulation jacket tailor-made in the style of the regulation Army tunic from a *Zeltbahn* of the same material, its green wool collar salvaged from an old tunic. These field made jackets were popular among officers and senior NCOs; in summer they allowed the display of rank insignia without the necessity of wearing a woollen tunic under a camouflage garment. Items in the author's collection attest to another ingenious solution: attaching the collar of an old tunic to extra buttons sewn around the neck of the *Tarnhemd*.

**(Right)** Smock printed in a rare variant of *Platanenmuster* in which the normally well-defined spots have a ragged-edged appearance, a daubed or smeared effect perhaps produced by the deliberate or accidental shifting of the overprint screen. (Courtesy Maurice Bazin, Le Val-St Pere Museum, Avranches)

# SS-RAUCHTARN-MUSTER

This "smoke camouflage pattern" is that sometimes termed in English "burred edge"; but though this is reasonably descriptive of some examples of this camouflage, others illustrated here show that this burred effect is often absent. The German term aptly defines all the minor variations of this widely used pattern, whose black or dark overprint is very suggestive of drifting smoke. It is actually a variant of *Platanenmuster* with identical spring and autumn base colours, but with the "smokey" black overprint substituted for the spotted "plane tree " overprint.

Photos confirm use of this long-lived pattern from 1939 (helmet covers and smocks) until at least 1944 (two-piece padded reversible winter suits). It was probably used for more different types of regulation SS garments than any other pattern, though all examples are relatively rare. It is found on *Zeltbahnen*, first and second model helmet covers, field caps, and smocks - including even the very last smocks, made up in herringbone twill linen. When the two-piece non-reversible suit replaced the smock from January 1944 remaining stocks of *Eichenlaub* and (much more rarely) *Rauchtarn* pattern HBT were used in its manufacture, brown side out, alongside the more typical *Erbsenmuster*. Rare examples of the *Wintertarnanzug* are also known in *Rauchtarn* cloth - to the best of the author's knowledge, exclusively in autumn brown.

A soldier examining booty from an ambushed US column in the Ardennes; he wears a first model helmet cover and second model smock, both in *Rauchtarnmuster* pattern, brown side out - the "wafting smoke" effect which gives this pattern its German name is particularly noticeable here.

First and second model smocks, both in *Rauchtarnmuster*. The *Unterscharführer* (left) - newly promoted, to judge by the fact that he has not yet added *Tresse* to his tunic collar - has both helmet cover and smock of the first models. The *SS-Schütze* (right) wears a second model cover in *Beringt-Eichenlaub-muster* with a second model smock in *Rauchtarnmuster*.

Pocket of a second model *Rauchtarnmuster* smock turned out to show the usual reed-green *Drillich* material, as also used for fatigue clothing. Pockets are sometimes found made in matching camouflage cloth, however.

**(Above)** Although there are several slight variations of the *Rauchtarn* pattern, none is so different as to be separately classified; here, four items all made in the same basic pattern show slightly different characteristics.

**(Left)** Two slightly varying examples of the *Rauchtarnmuster* used in the manufacture of the same *Zeltbahn*. This particular piece demonstrates why English-speaking collectors have termed the *Rauchtarnmuster* the "burred edge" pattern.

**(Opposite page, top left)** Modified *Tarnhemd* in *Rauchtarnmuster*, worn by an *SS-Untersturmführer* of *Flakartillerie*. The skirt has been shortened, and the surplus used to make a collar; the shoulders have been taken in to make a better base for epaulettes, with conventional jacket-type sleeves with buttoned cuffs.

**(Opposite top right)** *SS-Oberscharführer* wearing a smock of the last version, made from a linen/rayon herringbone twill *Drillich* material due to shortages of the higher quality cotton/rayon duck. This has been modified by insertion of a zipper of the early nylon type normally associated with *Luftwaffe* equipment, perhaps recycled from a grenade bag.

**(Opposite bottom left)** Probably the rarest examples of the 1944 *Drillich Tarnanzug* suit are those made of surplus *Rauchtarnmuster* herringbone twill - like those made from *Eichenlaub* and *Beringt-Eichenlaub* HBT, the brown side is outermost. These rare trousers, illustrated courtesy of the La Gleize museum in the Ardennes, are said to have been found after Kampfgruppe Peiper left that town.

**(Opposite bottom right)** Another rare *Rauchtarn* garment is the padded, reversible *Wintertarnanzug*, of which the parka is illustrated here. (Courtesy Dr.J-F.Borsarello)

# SS-PALMENMUSTER

*Oberscharführer* of cavalry on reconnaissance in Russia, 1942 (see also front cover). The *Palmenmuster* smock was in common use during this period; here it is worn showing the "autumn brown" side, as is the *getarnte Feldmütze* - the field cap introduced in June 1942, and printed here in original *Platanenmuster*.

This is one of the best known yet most enigmatic of the camouflage patterns used by the *Waffen-SS*; and "palm" pattern smocks command some of the highest prices, although found relatively frequently in collections. Since they are seen in photos of the 1939 invasion of Poland this was therefore one of the earliest patterns; and all seem to be of the earliest version of the first model *Tarnhemd*, with an elasticized neck and an extra flap behind the laced closure.

What sets the *Palmenmuster* apart from all other reversible patterns is that it seems to have been used only for the manufacture of the smock. There is some photographic evidence (e.g. from the 3.SS-Division *Totenkopf*) suggesting its possible use for helmet covers, but these could be field-made replacements - the author knows of no surviving factory issue covers in "palm" pattern, although their manufacture from smock off-cuts would have been logical.

*Palmenmuster* smocks were probably not made after 1942, and none are known to survive in the second model, with skirt pockets and foliage loops. However, a published photograph dated no earlier than 27 August 1943 shows *SS-Obersturmbannführer* Ernst Haussler of the *Totenkopf* Division wearing a very new-looking *Palmenmuster* smock complete with foliage loops which, though grouped unconventionally, appear to be factory-produced.

*Palmenmuster* seems to have been popular among *Waffen-SS* personnel; photos show it still being worn by officers and NCOs as late as the Ardennes campaign of 1944-45. The "striped" effect in some areas of the pattern is the probable origin of the early smocks being nicknamed "tiger shirts" by the troops.

There are many photos, particularly from the *Totenkopf* Division during the invasion of Russia, showing *Palmenmuster* smocks modified by the addition of two well-made scalloped and pleated uniform-style pockets. This may conceivably have been an actual factory variant, or at least a large scale field modification by unit tailors.

Several photos also exist of various cuts of uniform jacket (and even matching trousers) in *Palmenmuster*; these appear to have been made up from one or more smocks by a field tailor. The author owns an example in which the front has been opened full length, with a zipper inserted; conventional jacket arms have been added to reduce the bagginess of the garment, and to allow neat attachment of shoulder rank insignia.

**(Left)** Rear view of the "palm" pattern smock, showing "autumn" coloration. This may be the only camouflage pattern in history in which the pattern is not randomly printed - specific elements of the design are intended to be positioned in specific areas of the garment. This could explain the absence of *Palmenmuster* field caps and helmet covers, the repeating design for the manufacture of the smocks leaving no extra material for making up into these smaller items.

**(Above)** Comparison of the cuff of an original smock (left) and a replica (right). Note the relative fineness of the selvedge of the original.

**(Below)** Excellent fakes of this smock now exist, made from replica cloth which can appear very convincing when heavily distressed and artificially aged. One point apparently overlooked by fakers is that original *Palmenmuster* smocks seem to have been made from unusually thin cotton duck, through which the pattern invariably "bleeds" to the other side - in this respect the fakes are actually superior. An original is shown here above a replica.

# SS-EICH-PLATANEN-MUSTER

This pattern is so named as it is a hybrid of the "oak-leaf" and "plane tree" patterns. It has the *Eichenlaub* pattern as a background, with a superimposed black overprint similar to that of the original *Platanenmuster.* This differs from the original in that the mottled "spring green" and "autumn brown" base patterns appear as simpler blotches of only one colour ink rather that the more variegated, irregular “oakleaves” of the *Eichenlaubmuster.*

Both *Eichenlaub* and *Eich-Platanen* employ the same dyes and base patterns; they are differentiated only by the last printing of black/dark dye. In the case of *Eichenlaub*, this last printing gives a harmonizing, shaded effect to the oakleaf design. On the *Eich-Platanen* the black dye is applied much more liberally in an irregular, highly contrasting overprint of spots, blotches and blocks. As already explained, the author believes that the dark overprint was applied with silkscreens, which would account for the ink-smeared effect sometimes seen, and for the numerals seen on both the *Platanen* and *Eich-Platanen* patterns.

Datable photos, and the styles of garments for which it was used, suggest that the *Eich-Platanenmuster* was introduced in 1942-43, and was commonly used for the second model smocks and helmet covers which appeared in that period, during which the original *Platanenmuster* seems to have fallen into disuse. Generally, though not invariably, first pattern smocks are seen in *Platanenmuster* and second pattern in *Eich-Platanenmuster*.

In addition to the smock and helmet cover the *Zeltbahn*, field cap, and armour crews' *"Panzerkombi"* were commonly printed in this pattern. The latter seems only to have appeared in *Eichenlaub* and *Eich-Platanen* patterns - further evidence of their being contemporaries. Some time in early to mid-1943 the *Eich-Platanen* pattern fell into disuse. This is confirmed by the fact that although it was certainly used for the early *Panzerkombi* (without thigh pocket) in that year, there is no trace of its being used for the later coverall or for the radically different camouflage uniforms introduced in early 1944; nor does the author know of any smock in this pattern made of "late 1943" herringbone twill.

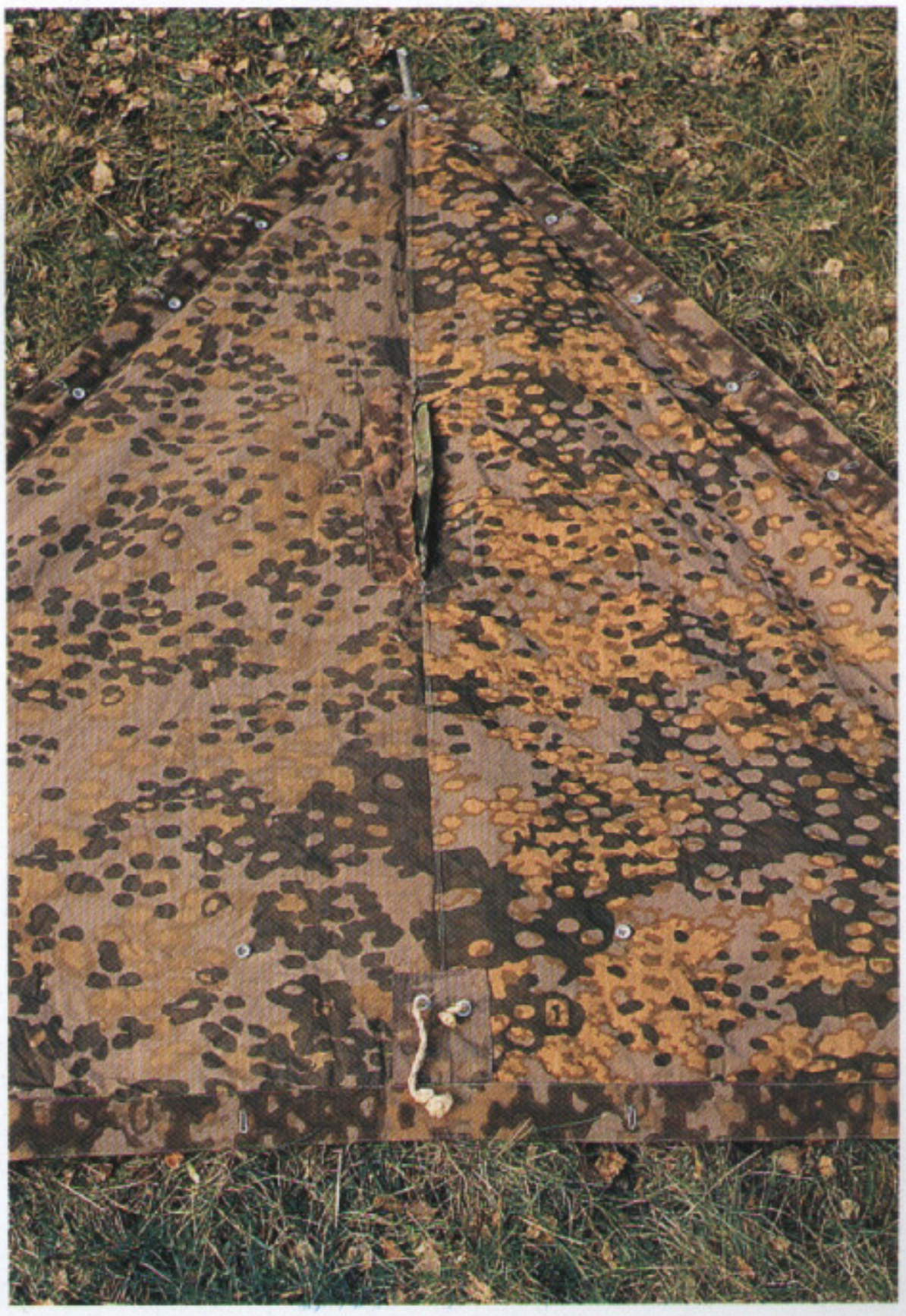
**(Above left)** Rear view of the *Palmenmuster* smock worn by an infantry NCO, green "spring" side outermost. The helmet cover is in *Platanenmuster,* the type most often seen associated with the "palm" smock.

**(Left)** Jacket field-made from *Palmenmuster* first pattern smock, with zipper front and re-tailored sleeves.

**(Left)** Second pattern smock in *Eich-Platanenmuster*, with first model helmet cover in *Platanenmuster*. The cuff sections of this smock are actually made from "regular" *Platanenmuster*; the mixing of pieces of different pattern cloth in the manufacture of SS camouflage items is not uncommon. Generally the smaller sections - cuffs, pocket flaps, etc. - are made from "earlier" patterns, a logical use of factory offcuts. The "Ypsilon" (Y-strap) field equipment in canvas web-bing, originally intended for tropical use, was commonly issued in European theatres after 1943.

**(Left below)** "Spring" side of the most unusual *Zeltbahn* in the author's collection; it is made from three different patterns of camouflage cloth. The left panel here, num-bered "1", is in *Eich-Platanenmuster*, with *Eichenlaubmuster* as a back-ground scheme. The right panel, numbered "6", is in original *Platanenmuster* with a background of simpler blotches of one shade of green.

**(Below)** The "autumn" side of the multi-pattern *Zeltbahn* shows a third pattern - *Rauchtarnmuster* - on the reinforcement strips along the edges. Apart from the mixing of SS schemes, it is not unknown to find small pieces of Army splinter pattern cloth used for (usually hidden) reinforcements in the SS *Zeltbahn*, clearly by factories supplying both services - some identical manufacturers' stamps appear on both Army and SS shelter sections.



**(Below)** "Autumn" sides of the two principal items made in *Eich-Platanenmuster*: the second pattern smock (right), and the armoured crews' one-piece coverall. Both garments are completely reversible, with all pockets present and functional on both sides. The use of early "regular" *Platanenmuster* for the cuff sections of the smock is clearer here, as the red-brown of the earlier pattern is, typically, distinctly duller. Note also the foliage loops in this rear view.

**(Right)** Detail of one of the printed numbers characteristic of *Platanen* and *Eich-Platanen* patterns - see discussion in text of *Platanen* section.

**(Right)** Detail of the *Eich-Platanenmuster* armour crew combination, "spring" side outermost. This first model coverall lacked the large flapped patch pocket on the front of the left thigh, found on both green and brown sides of the second model; the latter is the type most often seen in 1944 photos, and was apparently made only in *Eichenlaubmuster*. In this photo note the elongated cuff/forearm pieces, and the placing of the lower pocket flaps forward of the side seams.

Comparison of replica first model coverall in *Eich-Platanenmuster* (left) and original (right). Given the extreme rarity of originals, the errors in the replica are typical of work based only on a few less-than-clear photos. The lower pockets are placed directly on the side seams, there are patch pockets on both thighs, and the cuff sections are of conventional length. While this book will undoubtedly lead to better fakes appearing, they should still be relatively easy to detect: because each front panel was made from a single piece of cloth, fakes cannot be made convincingly from original *Zeltbahnen*.

# SS-BERINGT-EICHEN-LAUBMUSTER

This "ringed oakleaf pattern" is the major variant form of the "oakleaf" camouflage, characterized by a dark edging which appears as rings when surrounding the smaller design elements. This may well have been the earliest version of the oakleaf pattern: some original first model smocks display the "ringed" variant, while the author has never seen this garment made in the "regular" oakleaf pattern. The author believes that the improved, second model smocks first appeared in l942, and it is probable that the *Beringt-Eichenlaubmuster* also dates from that year. It difficult to distinguish "ringed" from "regular" oakleaf in black and white wartime photos, however.

The *Beringt-Eichenlaubmuster* was used for helmet covers, smocks, caps and shelter sections; and perhaps also for the *Panzerkombi*, although the author is unaware of an extant original, or a photo clear enough to confirm this.The "ringed" oakleaf pattern was also used for 1944 HBT drill jackets and trousers. This HBT material was probably used in the making of second model smocks as well, although the author has not seen a surviving example.

The difference between *Beringt* and "regular" *Eichenlaubmuster* is most apparent in the *Wintertarnanzug* uniform; printed on the lighter cloth used for the outer shell of the padded uniform, the pattern takes on a very mottled appearance. The winter suit seems only to have been printed in the brown "autumn" variant.

Soldier of the 13.SS-Division *Handschar* wearing a rare first model *Tarnhemd* in *Beringt-Eichenlaubmuster*. The author knows of no authenticated second model smocks in this pattern, suggesting that the "ringed" variant was the earlier.

**(Below)** Comparison of "autumn brown" sides of the first model smock in "ringed oakleaf" (left) and the second model in "regular oakleaf" (right) patterns; the field cap and helmet cover are both printed in the *Beringt* version of the pattern.

**(Below right)** Detail of "ringed blotch" effect of the *Beringt* pattern, not present in the "regular" variant of *Eichenlaubmuster.*

**(Above left)** From December 1942 the first model *getarnte Feldmütze* introduced that June was ordered superseded by this second model, with subdued insignia Bevo-woven in green or brown on black to correspond with the background camouflage. In fact original surviving caps with this insignia are very rare, and they are uncommon even in wartime photos. This example is made in *Beringt-Eichenlaubmuster.*

**(Above)** A directive of 1 March 1944 ordered the reversible *Tarnhemd* out of production (though existing stocks could be used up), and substitution of the *getarnter Drillichanzug* - a four-pocket jacket, and corresponding trousers. Being non-reversible, these were to be made in a new "all-seasons" camouflage pattern (see *SS-Erbsenmuster* section below); but existing stocks of material in the old patterns, printed for late model smocks, were also employed - mostly "brown" side outermost. Worn here with a cap in *Eich-Platanenmuster*, this early 1944 jacket is in *Beringt-Eichenlaubmuster*.

**(Right)** A Panther crewman in "regular oakleaf" winter clothing (top) is being given a boost by a comrade displaying the "ringed" variant. An additional point of comparison between the autumn colorations of the two patterns is that the red-brown in the "regular" *Eichenlaubmuster* always seems to be printed noticeably deeper.

**(Left)** "Ringed oakleaf" was fairly commonly used for the *Wintertarnanzug*, invariably in the "autumn brown" - unlike the "regular oakleaf", of which examples are known in both colorations.

Good replica *Beringt-Eichenlaubmuster* cloth, probably German, mid-1980s; mostly found made up into second model smocks, it was also used (with devastating results, deceiving at least one major museum) for counterfeit *Panzerkombis*. Note the rather coarse selvedge, a good clue in detecting fakes.

A tailor-made fleece-lined coat and cap of *Beringt-Eichenlaubmuster*, perhaps made to order for a senior officer - just one of an enormous variety of non-regulation wartime garments made up in German and Italian camouflage cloth.

# SS-EICHENLAUBMUSTER

This "oakleaf pattern" - occasionally termed here "regular", to distinguish it from "ringed oakleaf" - is the most common of the reversible SS patterns among surviving wartime garments. (This does not reduce their value, however, as many collectors specialize in the Normandy and Ardennes campaigns, for which they are appropriate.) The pattern seems to have been introduced no earlier than 1942, and the author knows of no authenticated first model smocks in "regular" *Eichenlaubmuster*. It is the pattern most frequently seen in second model helmet covers and smocks. The *Zeltbahn* in this pattern was probably produced until the end of the war; the author has seen two examples which were never completed with buttons or grommets.

The camouflage tank crew coverall produced in *Eichenlaubmuster* is more commonly seen in 1944 photos (e.g. the Normandy battles) than in those from the 1943 Kursk campaign, which seem to show it in *Eich-Platanenmuster*. The later version, which had an additional flapped patch pocket on the left thigh, may only have been made in *Eichenlaubmuster*.

The last examples of the *Eichenlaubmuster* smock were made in a herringbone twill rayon/linen blend due to a shortage of *Zeltbahn*-quality cotton/rayon drill. When the new two-piece *Panzer* and infantry *getarnter Drillichanzug* suits were introduced in 1944, existing stocks of this material were used in their manufacture - in the majority of cases, "brown" side outermost - before being superseded by the "all-season" *Erbsenmuster* pattern.

There exists an extremely rare early 1944 *Drillichanzug* jacket made from HBT linen printed on the "spring green" side only. This is thought to be a transitional model in that it retains elasticized cuffs similar to those on the smock; also unusual are detachable buttons and a drawstring waistband, both features borrowed from the plain khaki SS tropical "Sahariana" jacket. It is also fully lined; and bears markings of the *SS-Bekleidungswerk* (clothing factory) at Straubing. One of the most interesting pieces in the author's collection, this "flea-market" find has been identified with virtual certainty to its original owner: *SS-Oberführer* Georg Bochmann, a holder of the Knight's Cross with Swords and Oakleaves, who served originally with the 3.SS-Pz-Div.*Totenkopf*, and later commanded the 17.SS-PzGren-Div.*Götz von Berlichingen*. (Given his high rank it is probable that photos exist of Bochmann wearing this jacket; the author would be very interested in obtaining copies of any which may be known to readers.)

The padded *Wintertarnanzug* was also produced in *Eichenlaubmuster*; it is more commonly encountered in "autumn brown" than in "spring green" colours.

There is good evidence that the parachutist's jump smock was also made in *Eichenlaubmuster* cloth (see discussion in *Erbsenmuster* section below). A published photo shows *Luftwaffe* Gen.Meindl wearing one while conferring with *SS-Obergruppenführer* Paul Hausser. An original of the same type and pattern exists in the collection of a *Waffen-SS* veterans' group, but its existence was discovered too late to obtain a photo for this book.

An MG42 gunner in the Ardennes, wearing probably the most typical late war camouflage garment: the second model smock in *Eichenlaubmuster*. The helmet cover is printed in the *Beringt* variant.

**(Above)** Cuff detail of the smock in the previous photo; note the fine selvedge and the black line, features so far not seen in forgeries. Cuffs are important: any selvedge which is hemmed, cut away, or bears stitch holes is cause for suspicion that the smock has been made up from *Zeltbahn* material. Although SS factories did recycle uniform items, it is unlikely that cuff sections would be made from recycled cloth, as they were made from the offcuts left over when the smock body was cut out.

**(Above right)** Foliage loops on the same *Tarnhemd*. Unusually, the three rows of stitching run parallel on this example; usually the outside lines radiate outwards towards the top.

**(Right)** Detail of smock pocket button and buttonhole. This is not a *Zeltbahn* button, but the type often used on military trousers. Plastic, glass, and pebbled-finish uniform buttons are all encountered, and were probably used depending purely on availability.

**(Left)** Green "spring" side of the second model *Tarnhemd* in *Eichenlaubmuster*.

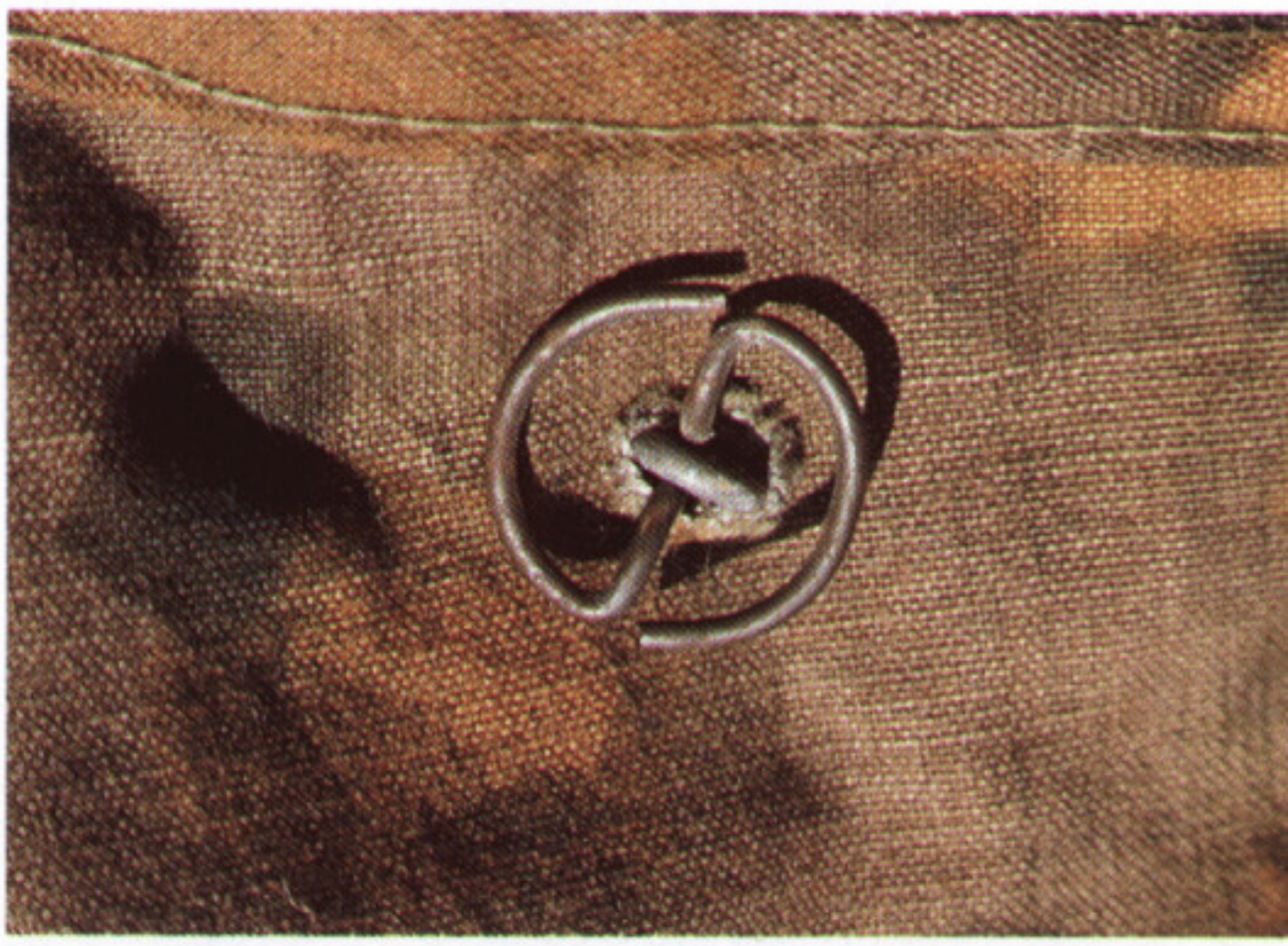
**(Right)** The interesting, possibly transitional HBT jacket of 1944 *getarnter Drillichanzug* cut, printed on one side only in "green" *Eichenlaub* pattern, which is discussed in detail in the text. It has smock-style elasticized cuffs, a drawstring waist, detachable buttons, and full lining. Interior markings suggest that it was made as early as January 1944 at the Straubing *SS-Bekleidungswerk* (the abbreviation is "SS-BW" - this does not, as stated elsewhere, stand for "Buchenwald"). Straubing was a recycling centre; it is interesting that this jacket has interior pocket flap reinforcements of *Luftwaffe* jump smock material.

**(Above left)** The "transitional" HBT jacket bore traces of a sleeve rank insignia; and comparison of the dimensions with complete insignia (as here) suggested the rank of *SS-Standartenführer* - full colonel. It was several years after the acquisition of the jacket that a small torn-off name tag, "G.Bochmann", was discovered inside one pocket; it perfectly matches stitch holes in the jacket lining. Bochmann, who held this rank when serving with the 3.SS-Pz-Div.*Totenkopf*, died in 1973 at Offenbach, very near where the jacket was bought in a "flea-market".

**(Above)** Comparison of the HBT material of the Bochmann jacket with a pair of trousers made from the reversible material usually found in garments made up from surplus stocks of smock-type camouflage cloth.

**(Left)** Trousers of a two-piece 1944 camouflage suit made from *Eichenlaubmuster* HBT with - typically - the "autumn" side outermost.

**(Opposite bottom left)** The right hand King Tiger tank crewman wears the one-piece reversible *Panzerkombi* made in *Zeltbahn*-type fabric, here in "oakleaf" pattern. It is worn here brown side outermost - as is the two-piece *Drillich* suit (left), cut like the black woollen *Panzer* uniform. This was introduced to replace the coverall from January 1944, though in practice both were worn simultaneously. This earliest version of the two-piece was made in *Eichenlaubmuster*.



**(Top)** "Spring" side of the second model armour crew coverall. Apart from the epaulettes, all buttons are of blue-grey glass - photos suggest that these were the most common type on this garment. "Oakleaf" overalls with an additional thigh pocket, as here, may be considered as the second model.

**(Above)** Wire loop attachment for the pebble-finish metal epaulette button of the armour crew coverall - this allowed the button to be switched over if the suit was reversed. (The same loops attach the buttons of the Bochmann HBT jacket on page 29.

**(Above)** Although there existed an insulated *Panzerkombi* reversing from field grey to white, in cold weather tank crews seem generally to have favoured the standard SS two-piece *Wintertarnanzug* introduced in time for winter 1943-44. The most common *Eichenlaub* pattern suit (left) reversed from "autumn brown" to white; the "green" variant (right) was much rarer.

**(Left)** Detail of the "autumn" *Eichenlaub* winter suit, this example slightly misprinted due to improper roller alignment, leaving white outline areas. The insulated mittens have separate trigger-fingers.

**(Above left)** A number of *Eichenlaub* pattern field-made jackets with zip fastening survive, and others appear in wartime photos. Such pieces are unlikely to be fakes, given the difficulty of selling such unusual garments (the author once traded one to a dealer, who "remodified" it with buttons for resale purposes!) This cheaply-bought example shows natural wear and aging and 1940s sewing techniques, so is probably original. Note green-on-black sleeve rank insignia of *SS-Obersturmführer.*

**(Above)** Another convincing though non-regulation jacket, cut as a simple working garment and therefore possibly worn by an armour crewman or mechanic.

**(Left)** This "oakleaf" camouflage version of the mountain troops' anorak is undocumented, so probably field-made; however, the author knows of at least three examples and has heard of a wartime photo, so they may have been made in quantity. It is fully reversible, but as with the smock and the armour crew coverall the most "favoured" side is the green; when worn brown side out, folded-over hems sometimes expose green areas. Note pocket details - there were two others set in the skirt just behind each hip - and cuff adjustment strap, identical to that of the standard brown-to-white mountain anorak.

# UNIDENTIFIED "SPIDERWEB" PATTERN

A number of items in unknown but apparently original German wartime camouflage patterns have surfaced over the years; and while most are omitted here for lack of any supporting documentation, this particular example stands out as a rare, as yet undated and undocumented, but probably original experimental pattern. The clues are as follows.

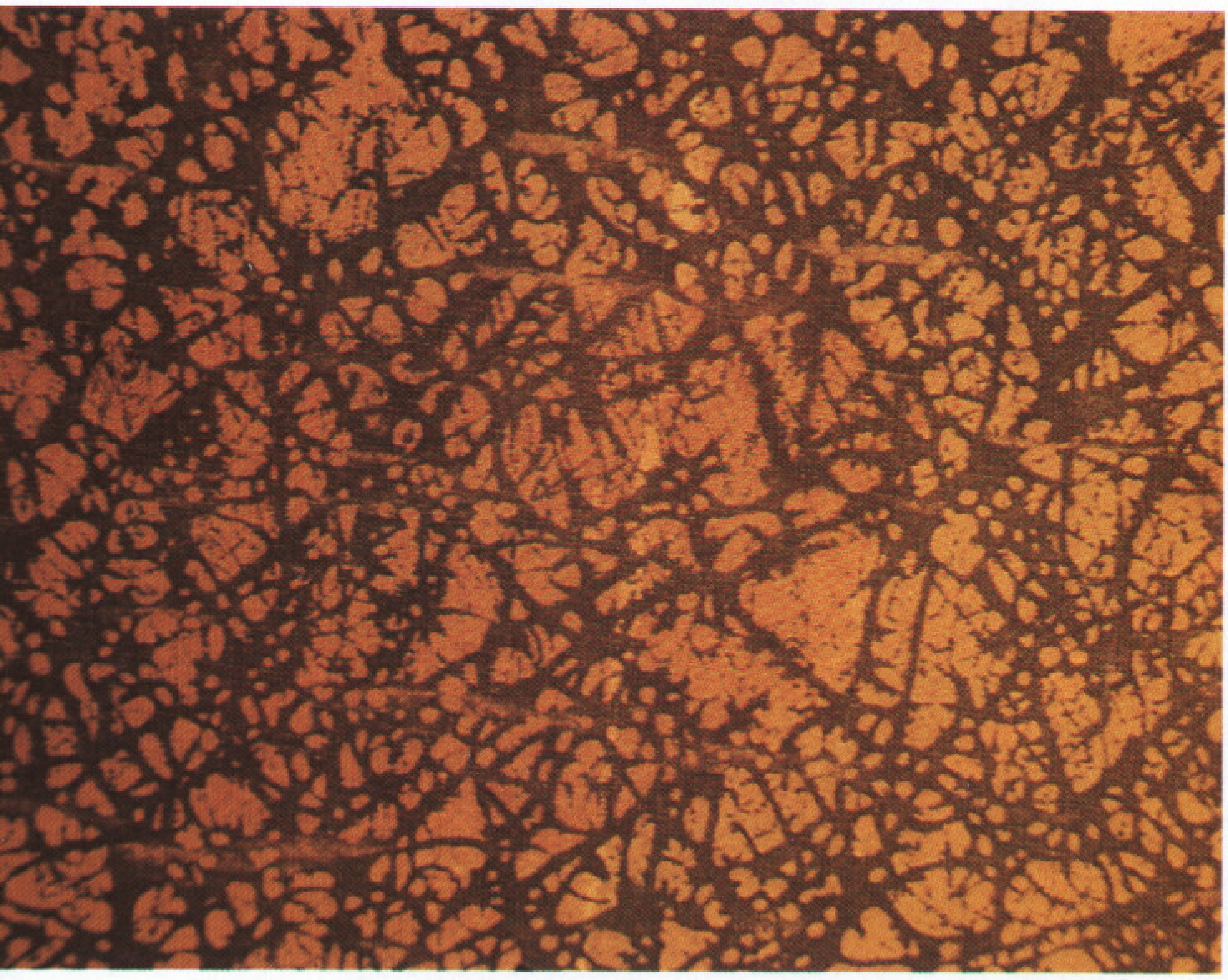
Firstly: some years ago an apparently original first model SS smock, printed reversibly in two distinct but undocumented patterns, was offered in a Frankfurt "flea-market".

Secondly: years later a large tent came up for sale, made in the same two patterns; this had allegedly belonged to a German engineer officer on the Russian front, and was described as possibly made from captured Russian camouflage cloth. Close examination, however, revealed fittings and features typical of German wartime tent construction, and a stencilled German marking including an equipment code identical in style to the wartime *Reichsbetriebnummer* system. The material - a lightweight cotton duck as used in early SS camouflage smocks - is too thin to be really practical for tent manufacture; and although exterior and interior are in two contrasting patterns the tent is not constructed to be reversible. The logical conclusion is that it represents the thrifty employment by a manufacturer of fabric originally intended for camouflage clothing, but rejected for some unknown reason.

Thirdly: a published photo (on page 73 of the book "*Wie ein Fels im Meer*") seems to show two combat engineers of the *Totenkopf* Division in Russia wearing smocks of this pattern.

No documentation has been located as to the date, origin, or scale of use of this intriguing pattern, logically termed in German *Spinne-Gewebemuster*. The author would be most interested to receive any additional information.

**(Below)** The four-metre-square tent described in the text; note the general appearance of the exterior pattern - a close web-like overprint of dark over lighter drab greens - and the interior brown pattern showing at the flap.



**(Left)** Detail of the exterior pattern, the lighting here making the lighter green drab background appear yellow.

**(Below)** Detail of the interior pattern, with darker brown "dripping blotches" (not dissimilar from the overprint element in the *SS-Leibermuster* pattern) over a lighter brown background. Again, the bright sunlight in this photo exaggerates the red and yellow tones.

# SS-ERBSENMUSTER

An order of 1 March 1944 introduced a two-piece camouflaged drill uniform - *getarnter Drillichanzug* - to replace green and off-white fatigue uniforms for work, as well as the pullover smock for combat operations. This uniform was to be of the same cut as the simplified field grey wool service uniform introduced to both the Army and *Waffen-SS* the previous year. In January 1944 it had also been decided to issue a two-piece *Panzer* uniform in camouflage drill cloth, replacing the one-piece *Panzerkombination*.

Records confirming exactly when production of these uniforms began have not been located, but presumably it was some time in 1943, in order to build up sufficient stocks for widespread issue the following year. As already described, the first suits were made in the herringbone twill *Eichenlaubmuster* cloth already in stock for the last issues of the reversible pullover smock. As there was no specification for the new drill uniform to be made reversible, a universal "all-seasons" pattern was developed to replace the previously employed reversible "spring" and "autumn" colorations. This is commonly termed *Erbsenmuster* - "pea pattern" - by German collectors and veterans.

Examples of both the armoured troops' and general issue versions of the *Erbsenmuster* uniform exist in a smooth, predominantly cotton/rayon duck cloth, and (more commonly) in a coarser HBT cloth of largely linen/rayon composition. There is no evidence for the theory, advanced elsewhere, that the former was a "1943 model" and the latter a "1944 model". An example of the smooth cotton duck type in the author's collection has factory-made pocket reinforcements of the supposedly later issue HBT - which suggests that in at least one factory a batch of HBT uniforms were made first, the offcut scraps later being used for finishing a batch of cotton duck garments. The best evidence suggests that both types were manufactured simultaneously from whichever cloth was available.

Collar insignia were not authorized to be worn on these uniforms. The SS version of the eagle-and-swastika national emblem was authorized on the left sleeve, just as on the field grey uniform, but photos show that it was often omitted. These uniforms were not made with loops and buttons

**(Above and right)** SS-Grenadiers pause by a knocked-out M4 Sherman in the overcast Ardennes dawn; both wear the March 1944 two-piece *getarnter Drillichanzug* in *Erbsenmuster* pattern. The right hand example is the more common version, of coarse flax linen/rayon in herringbone twill; on the left is the rarer type made of smoother, better quality cotton/rayon material.

for attaching epaulettes, and officially the only type of rank insignia authorized was the sleeve patch system of bars and oakleaves introduced in February 1943 and most typically seen on the *Wintertarnanzug*. However, photos confirm that standard rank epaulettes were occasionally worn on these drill jackets.

The *Wintertarnanzug* was also produced in the *Erbsenmuster*, though it seldom appears in wartime photos and surviving examples are rare. It is likely that it was only produced for the last winter of the war and that few reached the front lines, at least in the West; photos suggest that it was not commonly issued to SS troops involved in the Ardennes campaign, for instance.

Officially, caps and helmet covers do not seem to have been produced in this pattern. Field-made examples of both do exist, however, and if these are made from original material it is difficult to determine if they are originals or post-war fakes.

Perhaps the most controversial of all wartime German camouflage garments is the SS **parachutist's jump smock** manufactured in *Erbsenmuster* cloth. Until recently no wartime photos of this item were known to exist, although the author has recently been informed that one has now been discovered. It has long been stated that a batch of *Erbsenmuster* jump smocks were found in store by US troops during the liberation of Dachau, and taken back to the USA for sale to duck-hunters, but no confirmation of this story is known to the author. It is well documented that the *Waffen-SS's* few parachute troops normally wore the *Luftwaffe* "bone sack" in *Splittermuster* camouflage, probably because this was made of a high quality windproof cloth not carried on the inventories of SS clothing factories. There is some evidence that the SS may have actually manufactured *Splittermuster* jump smocks in their own factories (see note in *Eichenlaubmuster* section on offcuts used as lining in the Bochmann jacket). Logically, jump smocks could just as easily have been made in the same factories from the SS pattern fabrics at hand. It is probable that at least some of the known *Erbsenmuster* "SS jump smocks" are authentic, and two of the best candidates are illustrated here.

The most convincing of all SS camouflage fakes are those made from *Erbsenmuster* HBT cloth and heavily washed and distressed; if made using period thread and correct lining and buttonholes these can be extremely difficult to detect. One clue which betrays a very good US-made copy is that there are only very light and very dark green colours in the pattern, which lacks the third, medium olive shade.

Even more dangerous are the fakes made from original *Erbsenmuster* HBT cloth which appeared on the collectors' market in the late 1970s. The standard four-pocket tunics are perfect in materials and workmanship, and nearly undetectable. If the faker had been content with these he might never have been discovered; but this unknown entrepreneur then attempted to reproduce the two-piece *Panzer* suit - and, not having an original SS example to copy, modelled it on the Army cut instead. Being otherwise perfect in detail, these fakes are still accepted in some quarters as originals of a "rare variant".

*(continued on page 39)*

**(Below and right)** Details of the cotton/rayon version of the 1944 *getarnte Feldbluse*. Note, in the extreme close-up, the top button, usually hidden under the folded-open collar; all the others on this jacket have been replaced, presumably due to wear and tear. This tan porcelain type is that originally issued on this garment. The cotton/rayon material is identical in composition to the plain khaki cloth used for the SS tropical "Sahariana"-cut jacket, which also normally has these tan buttons. The author believes that the cotton/rayon *Erbsenmuster* uniforms came from factories which still held stocks of material originally intended for tropical uniforms.

**(Left)** The two-piece armour crews' version of the *getarnter Drillichanzug* - based on the earlier reed green *Panzer* fatigue uniform, and intended to replace both that and the *Panzerkombi* - was authorized in January 1944, two months before the four-pocket general issue type was ordered into use . This photo in fact shows an original uniform (right) and a good replica (left).

**(Right)** Close-up of the printed patterns on the replica *Erbsenmuster* armour crew drill uniform (left); and the original (right), revealing an extra shade of olive green in the pattern.

*(continued from page 37)*

This ambitious faker was finally exposed when he put onto the market HBT *Erbsenmuster* "SS parachutists' jump smocks" made from the same original cloth - but with post-war "Ries" zippers and "Original Prym" press studs (see book EM 17 in this series, pages 42-44). His carelessness over these last products condemned his earlier work by association. The author believes that at least some of the known four-pocket *Erbsenmuster* jackets cut with the pleated and scalloped pockets of the M1936 tunic are products of the same faker, and are explainable as a mistake similar to his use of the Army *Panzer* jacket as a model. There is no photographic evidence that either of these jackets was produced during the war.

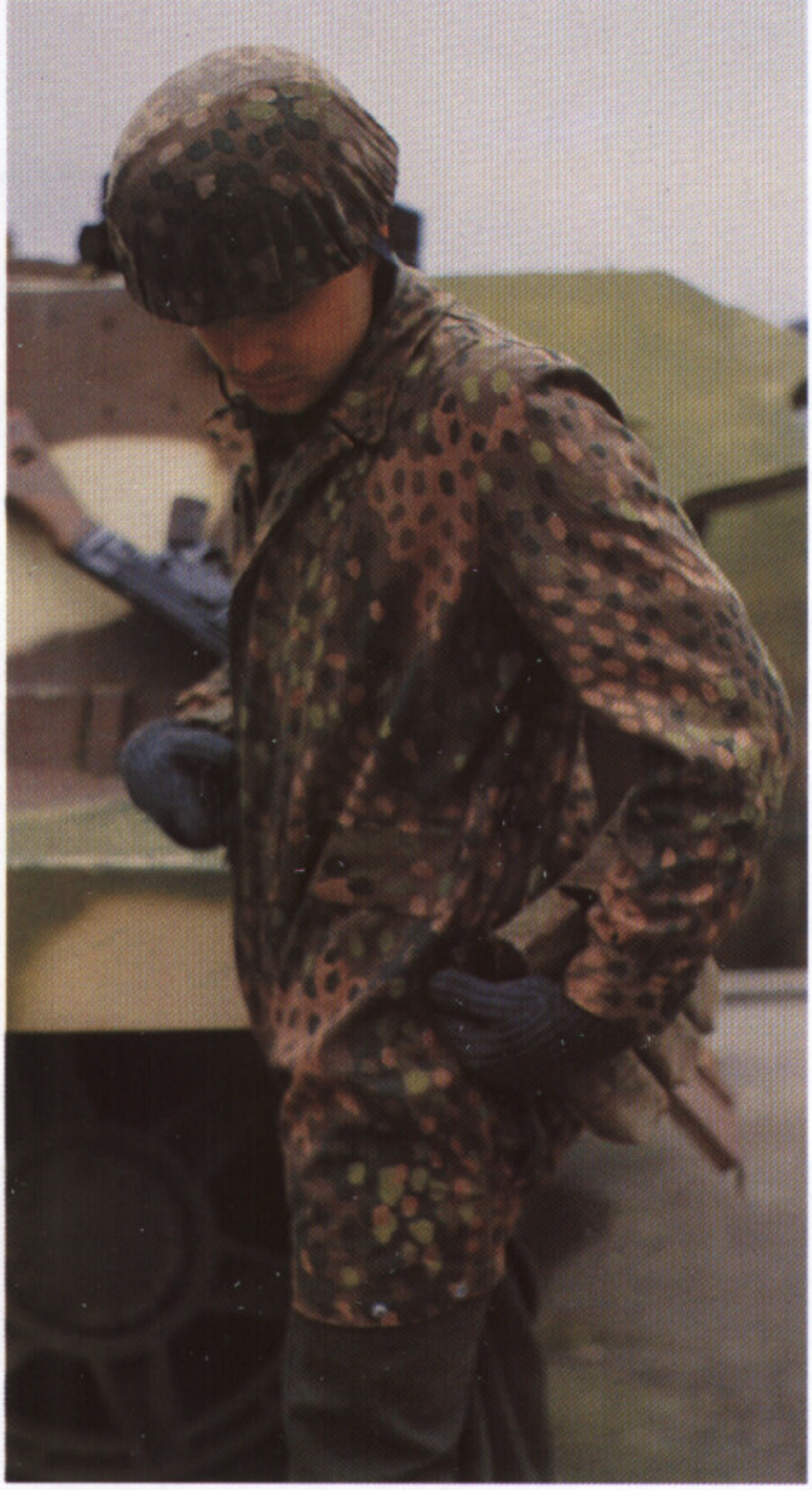
**(Above left)** Detail of a camouflage drill *Panzer* jacket with (though now very faded) a white-stencilled "W" on one sleeve; the other bears a "P". These "PW" markings, applied by their Allied captors to prisoners of war, seem to be encountered most often on SS clothing, perhaps because such troops were believed to be more dangerous and escape-prone prisoners.

**(Above)** Interior detail of the same *Panzer* jacket showing pocket, lining, and waist drawstring.

**(Left)** Very unusual uniform cut in the style of the M1944 field grey wool uniform but from the lightweight rayon normally used for the outer shell of the *Wintertarnanzug*. A "flea-market" find which had once been reversed to the unprinted side to make a post-war working suit, it does not appear to have been re-cut from a made-up winter uniform, but was probably produced as a last-ditch issue in 1945 from material locally held in stock at some factory.

**(Right)** The "pea pattern" version of the *SS Wintertarn-anzug*, apparently produced in relatively small numbers.

**(Below)** Comparison between replica (left) and original (right) parkas of the *Wintertarnanzug* in *Erbsenmuster*; the replica in this case is an "honest" product made for re-enactors.



**(Above and right)** The best example known to the author of what is in all likelihood an original SS paratrooper's jump smock. Unlike most purported examples, made from loosely woven HBT (impractical for parachuting), this smock is made from high quality windproof fabric similar to that used for *Luftwaffe* "bone sacks". All buttons and snaps are correct (although, oddly, it seems never to have had zippers fitted, and the pockets are sewn closed).

**(Above and right)** If any of the known "SS jump smocks" in herringbone twill material - *Drillich* - printed in *Erbsenmuster* are original, this is probably the best candidate; although it is unfortunately heavily converted, the author knows of several comparable examples of major modification to original *Luftwaffe* smocks. The heavy sheepskin lining is an issue wartime German parka, with markings stamped in the pocket lining. The addition to this cheaply-bought garment of a hood from the rare (and thus now very expensive) *Erbsenmuster* padded winter parka also argues its authenticity.

# SS-LEIBERMUSTER

We owe most of our information on this last camouflage pattern of the wartime German forces to the efforts of US Army Quartermaster Francis S.Richardson. According to Richardson, who produced a report on German camouflage for the US Army shortly after the war, this pattern was developed by the same Professor Schick who was responsible for the earliest SS camouflage patterns. Interestingly, it is the only pattern of which we know the official wartime German name.

This pattern was intended to replace all previous patterns used by both the *Wehrmacht* and the *Waffen*-SS; and was manufactured using special light-absorbing dyes to counter observation by infra-red night vision devices, then coming into use. In his report of 20 July 1945 Richardson explains at length the time-consuming processes necessary to produce this cloth. He also makes the observation that the pattern was intended primarily for the manufacture of "winter clothes and awnings" (*Wintertarnanzug* and *Zeltbahnen*), and that very few soldiers seem ever to have been issued with it.

No mention is made by Richardson of the M1944-style jackets and trousers made of herringbone twill *Leibermuster* cloth, which have turned up on the collectors' market during recent years. Richardson included with his report a sample of *Leibermuster* cloth; this is not of herringbone twill, but of a smooth drill more closely associated with the *Wintertarnanzug* and *Zeltbahn* (of which Richardson had first-hand knowledge in 1945). All of the recently collected M1944-style HBT *Leibermuster* garments seem to have originated in Eastern Europe; and although the author is convinced that some at least are not modern fakes, it is possible that they could be an early post-war issue used by Czechoslovakia (which also produced its own version of the *Leibermuster* in the 1950s). Many early post-war Czech uniforms are nearly exact copies of wartime German models, probably even made in some of the same factories. Until original wartime photos of the M1944-style *Leibermuster* uniform are discovered, one of the best pieces of evidence for their authenticity is an extremely similar HBT jacket in *Sumpfmuster 44* cloth discovered in a Frankfurt market (see book EM 17 in this series, pages 48-49). It is possible that similarly cut HBT *Leibermuster* jackets coming out of Eastern Europe are original, but were unknown to Richardson because they only saw use on the Russian front.

In Western Europe, there is some evidence of original *Wintertarnanzug* garments in smooth drill cloth as described in Richardson's report. The author has a reversible *Wintertarnanzug* parka in *Leibermuster* cloth, and knows of a nearly identical example in France. A piece of exactly the same kind of cloth was found in a Munich "flea market" many years ago. A section of this cloth was given to the *Bundeswehr* museum at Koblenz by the finder; the remainder was acquired by the author.

**(Above)** The two-piece *Leibermuster* uniform as it may have appeared in the waning days of the war in Europe. It may be significant that most surviving examples are very faded and worn - perhaps they were the only clothes available to POWs for some time after the war? (Courtesy Dr.J-F.Borsarello/ M.Beraud)

**(Below)** Rear view of the *Leibermuster* jacket, resembling in cut the blouse of the 1944 grey wool uniform which began to replace the four-pocket tunics of the Army and *Waffen-SS* from that year.

**(Above)** Another *Leibermuster* jacket; its almost identical cut to that of the *Wehrmacht Sumpfmuster* blouse found by the author in a Frankfurt market argues a genuine wartime provenance, although the *Leibermuster* example differs in showing no sign of having had foliage loops sewn behind the shoulders. Both the *Sumpfmuster* and *Leibermuster* examples are made of linen/rayon HBT material quite unlike the cloth sample attached to Richardson's 1945 report.

**(Above)** Detail of the herringbone twill linen/ rayon material used for the *Leibermuster* M1944-style two-pocket jackets and marching trousers.

**(Right)** The size codes and RB numbers stamped in the *Leibermuster* jacket illustrated. Curiously, these markings are stamped at the inside bottom of the front left panel instead of in the customary position inside the upper breast.

# MISCELLANEOUS GERMAN WARTIME PATTERNS

While neither tents nor parachutes are items of uniform, they are included briefly here because both are of printed camouflage material, lacking the "*Strich*" element, and could theoretically be found "recycled" into field-made uniforms and equipment.

**(Left) Wehrmacht Zeltmuster** This may be the first published colour photograph of this rare type of tent. It may have been *Luftwaffe* issue; though no specific markings indicate this, a wartime photo shows *Luftwaffe* personnel with a tent identical apart from a slightly different camouflage pattern, and this example was found in Normandy close to the command post of the 6.Fallschirm jäger-Regiment. Markings identify it as a "small staff tent", made at Fulda, Germany in 1940 by the same *Textilwerk* known to have produced both *Wehrmacht* and SS *Zeltbahnen*. Both the tent and its carrying bag are printed in this pattern of brown blotches on blue-grey (given the date, this base colour is probably not a significant indicator of exclusively *Luftwaffe* issue.) Note steel helmet included for scale.

**(Right) Luftwaffe Fallschirmtarnmuster** Fine view of a deployed *Luftwaffe* RZ20 parachute showing the camouflage finish introduced in 1941: a yellowish-tan base with a green and brown blotched pattern. Printing the very fine parachute nylon required specialized printing rollers which were not suited for the printing of heavier weight uniform material, and there is no evidence of this pattern being used for the regulation manufacture of anything except parachutes. However, the author knows of some field-made helmet covers, smocks and aprons constructed of material re cycled from damaged parachute canopies; and while none of these have been documented in photographs, such items are probably genuine.

# ITALIENISCHES-TARNMUSTER

The Italian scheme introduced with the camouflage tent-poncho in 1929 enjoys the distinction of being the longest-used camouflage pattern in the world, being virtually unchanged until replacement began in the 1990s. Widespread use of Italian camouflage material by Germany coincided with the disarmament of the Italian forces in 1943; the 1.SS-Panzer-Division *Leibstandarte SS Adolf Hitler* took part in that operation, and together with the 12.SS-Pz-Div. *Hitlerjugend* (formed around cadre from *LSSAH*) are the most noticeable users of Italian camouflage in wartime photos. The pattern was evidently popular; photos show many senior officers - e.g. the SS generals Sepp Dietrich and Kurt "Panzer" Meyer, who had access to any German camouflage clothing they wanted - wearing uniforms made from this material.

Virtually every type of regulation German field uniform was duplicated in Italian pattern cloth, as well as a wide variety of "custom-made" articles; some items appear to have been mass-produced, others individually tailored. Factory-issued garments include four-pocket jackets and trousers cut on the 1943 uniform model; hooded parkas lined with rabbit fur; and triangular shelter sections cut identically to the regulation *Zeltbahn,* though camouflaged on one side only. At least one photo - of three men wearing identical garments - suggests that SS-style smocks in Italian material were probably factory-issue. Field caps and one- and two-piece *Panzer* suits may also have been mass-produced in this material.

There appears to be a "Czech connection" to some of these Italian camouflage items. Many parkas and *Zeltbahnen* in today's collections were originally found in Czechoslovakia; and before being "doctored" by dealers for resale these parkas often have Czech Army buttons. Even more suggestive is a 1949-dated Czech Army shelter section, cut to Russian design but in Italian camouflage material. All of this suggests that much captured Italian camouflage material was sent to German clothing factories in occupied Czechoslovakia; and that the Czechs continued to use it post-war. (It is even possible that actual printing equipment for this pattern was moved from Italy to occupied Czechoslovakia.) It is therefore probable that many surviving examples of, for instance, the parka with fur lining are in fact of post-war manufacture, although identical to those used by the wartime SS.

Given the relatively smaller demand and lower prices, one is less likely to encounter faked wartime items in Italian than in German camouflage patterns. However, post-war material is often mistaken for the very similar wartime pattern, and unscrupulous dealers may add German buttons and insignia. Most of this post-war clothing is easily detected through its use of modern or non-German features such as press snaps, side pockets on legs, etc.

**(Top p.48)** A copy in Italian-pattern cloth of the SS *getarnter Drillichanzug*, as it might have been worn in the Ardennes by a Grenadier of the *LSSAH*. This seems to be a mass-produced item made from cloth in the bolt rather than a privately tailored piece converted from a shelter section. Identical uniforms appear in photos of the *Hitlerjugend* Division in Normandy.

**(Bottom p.48)** This jacket is patterned on the M1944-type field blouse, and appears to be individually produced from the heavier cloth usually employed for the shelter section. Italian pattern *Sturmgewehr* magazine pouches are known from photos, and these appear genuine.

**(Above left)** Italian camouflage parkas with rabbit-fur lining were factory-made in quantity and are confirmed by wartime photos. However, they continued in use after the war by the Czech Army.

**(Above right)** This *Leibstandarte* officer in Italy wears an interesting jacket not only copied from, but actually partly made from a British battledress blouse: reinforcing panels of British khaki serge have been sewn into the sleeves and body of lightweight Italian material, and - unlike most German copies - it has a British-style buckled waist tab. Dated 1944, it bears the stamp of a Rome tailor.

**(Right)** This officer wears a version of the Army reed green two-piece armour crewman's *Drillichanzug* in Italian material. The original green version was worn by *Waffen-SS* crews as well; it was more practical than the equivalent SS issue, which lacked the large breast pocket. This garment was probably made by a military tailor, copying it from the reed green HBT version. The trousers were field-made from SS *Eichenlaub Zeltbahn* material.

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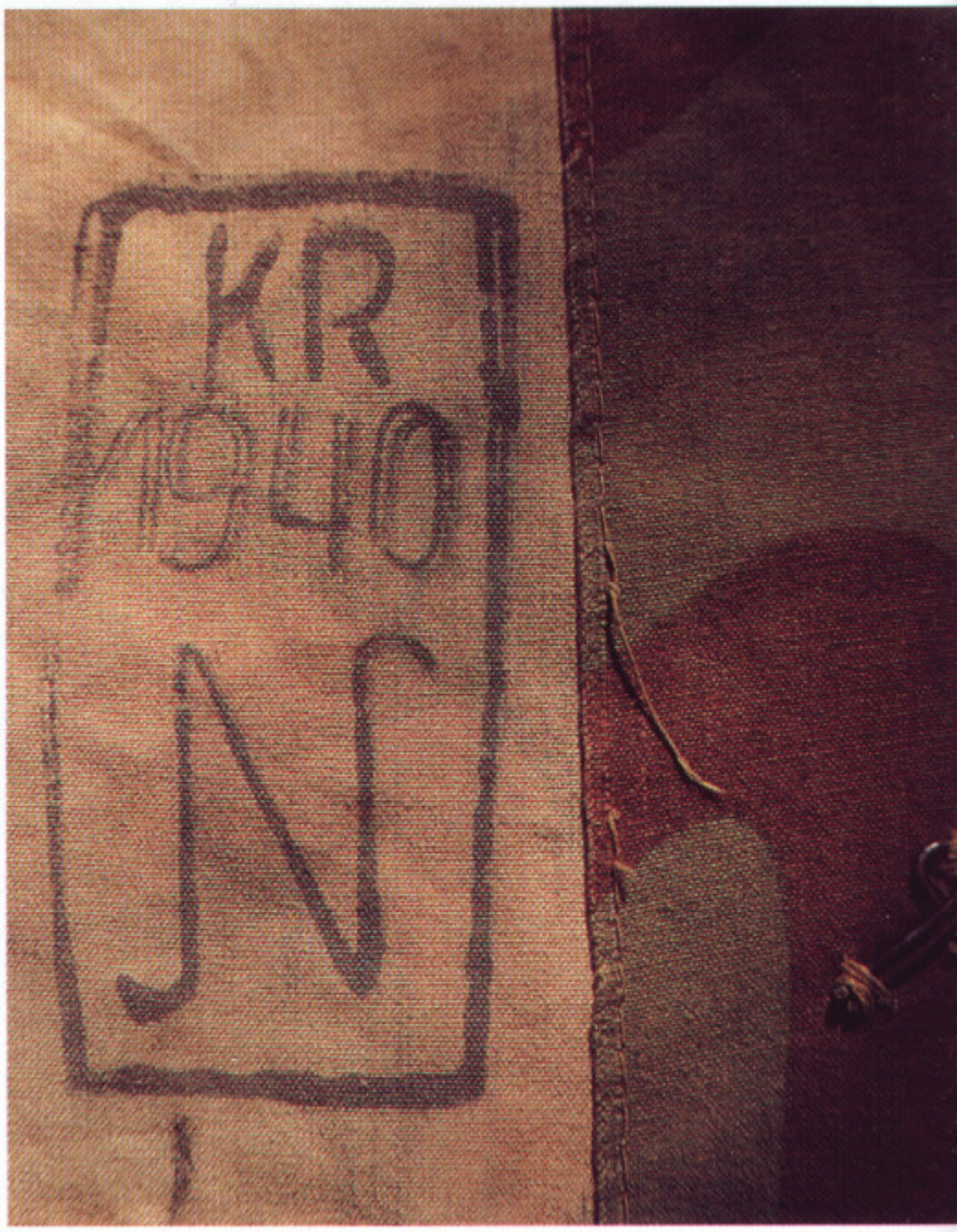
**(Left)** Comparison of original wartime Italian camouflage *Panzer* coverall (right) with modified post-war Italian coverall (left). The latter has been "doctored" by a dealer, who added blue-grey glass German buttons and replaced the cloth epaulettes with German-style epaulette attachment loops and pebble-finish buttons. The large cargo pockets on the legs, and the brighter sage green shade tending almost towards a drab turquoise, are also characteristic of post-war Italian camouflage suits.

**(Below)** Field-made version of the German Army *Windjacke für Gebirg-struppen*. This unquestionably genuine piece - worn here as if by a member of the 13.Waffen-Gebirgs-Division der SS *Handschar* - is precisely copied from the regulation jacket using Italian pattern cloth, probably from a shelter section.

**(Left)** This King Tiger crewman wears a *Panzerkombi* obviously inspired by the regulation SS camouflage version, though it is not reversible. Photos show these coveralls being worn in Normandy, and they may have been issue items rather than tailor-made for individ uals. Note, in comparison with the photos on page 49, the wide colour differences found in wartime Italian camouflage material; this bold yellow shade is unusual.

# UNGARISCHES-TARNMUSTER

**(Above)** Technically this is not a German camouflage; but German and Hungarian troops served side by side as allies, and there is a high probability that Hungarian camouflage material saw some German use in field-made garments. One Hungarian variant closely resembles Italian camouflage cloth, and items made from it may easily be misidentified. The only item of personal equipment which seems to have been officially made from this material is the poncho/shelter section, which is cut in the Eastern European fashion with slits for the arms and a drawstring forming a hood. The two distinct wartime variants of the pattern are illustrated here - "hard edge" (left) and "soft edge"(right).

**(Right)** Manufacturer's mark on the "hard edge" camouflage shelter section. The earliest example known to the author is dated 1938; and the earliest example of the "soft edge" variant, 1939. (The "soft edge" pattern was reintroduced for various Hungarian Army uniform items in the 1980s.)